

What is claimed is:

1. A method of applying liquid or pastelike substances, especially thermoplastics, to a backing material, the substance being applied by means of a die at least partly to the backing material traveling along on the die, wherein

- 5 • the die body is bent transversely to the direction of travel of the backing material and
- the bending is induced by temperature differences within the die body.

10 2. The method as claimed in claim 1, wherein the die has at least two zones temperature-controlled differently in its cross section and/or along its longitudinal axis.

15 3. The method as claimed in either of claims 1 and 2, wherein the die body is temperature-controlled using a heat transfer fluid or cooling fluid, electrical heaters, Peltier elements, radiation or convection.

20 4. The method as claimed in any of claims 1 to 3, wherein the coating fluid is itself used for temperature control of at least one of the zones.

5. The method as claimed in any of claims 1 to 4, wherein the die in its mounts may be moved and/or swiveled.

25 6. The method as claimed in any of claims 1 to 5, wherein the bending occurs substantially perpendicularly to the backing material or substantially in or against the direction of travel of the backing material.

7. The method as claimed in any of claims 1 to 6, wherein the backing material is guided along an apparatus which produces counterpressure, in particular a roll.

30 8. The method as claimed in one or more of the preceding claims, wherein the substance is applied by means of the die through a perforated cylinder onto the backing material.

9. The method as claimed in one or more of the preceding claims, wherein the bending of the die is controlled as a function of the amount of the substance that is applied, determined on the traveling web.

5 10. The method as claimed in one or more of the preceding claims, wherein the substance at the processing shear has a dynamic zero temperature viscosity of from 0.1 Pa.s to 1 000 Pa.s, preferably from 1 Pa.s to 500 Pa.s.

10 11. The method as claimed in one or more of the preceding claims, wherein the substance is a solution, dispersion, prepolymer or thermoplastic polymer, preferably a hot-melt adhesive, with particular preference a hot-melt pressure-sensitive adhesive.

15 12. The method as claimed in one or more of the preceding claims, wherein the backing material is a roll or belt having an adhesive surface, the adhesive surface comprising in particular a coating of silicone or fluorine compounds or plasma-coated release systems, applied very particularly at a weight per unit area of from 0.001 g/m² to 3 000 g/m², preferably from 100 to 2 000 g/m².

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